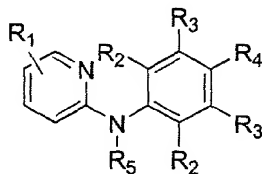


What is claimed is:

1. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a compound having the formula



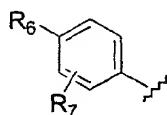
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or a pharmaceutically acceptable salt thereof, wherein

- (a) R_1 is H or a substituent bound at either the 5 or 6 ring position and selected from the group consisting of alkyl, alkenyl, alkynyl, thienyl, furanyl, pyrrolyl, phenyl, pyrimidinyl, substituted pyrimidinyl, pyridinyl, substituted pyridinyl, phenyl alkenyl, substituted phenyl alkenyl, benzo[b]thien-2-yl, 2-benzofuranyl and substituted phenyl,

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said substituted phenyl having the formula



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wherein (i) R_6 is selected from the group consisting of H, OH, halogen, alkylamino, dialkylamino, hydroxy-substituted dialkyl amino, lower alkyl, acidic lower alkyl, alkoxy, halogen-substituted lower alkoxy, phenyl and morpholinyl, and (ii) R_7 represents between one and four substituents which may be the same or different and are selected from the group consisting of H, halogen, amino, alkyl, lower alkyl, halogen-substituted lower alkyl, alkylamino, dialkylamino, acidic lower alkoxy, alkoxy, halogen-substituted lower alkoxy, alkoxy and phenylalkoxy, with the proviso that R_6 and R_7 may be fused to form 2-naphthyl or 1,3, benzodioxolyl;

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- (b) Each R_2 is independently H or lower alkyl;
(c) Each R_3 is independently selected from the group consisting of H, lower alkyl, amino, alkylamino, dialkylamino and lower alkoxy;

- (d) R_4 is H, alkoxy or morpholinyl, with the proviso that R_4 may be fused with R_3 to form 2,3-dihydro-1,4-benzodioxinyl or 9-alkyl 9H carbazolyl; and
- (e) R_5 is H or lower alkyl.

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2. The pharmaceutical composition of claim 1, wherein R_1 is a substituted phenyl at the 5 ring position, and each R_2 is H.

3. The pharmaceutical composition of claim 2, wherein R_4 is morpholinyl.

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4. The pharmaceutical composition of claim 2, wherein each R_3 is lower alkoxy and R_4 is lower alkoxy.

5. The pharmaceutical composition of claim 1, wherein R_1 is at the 6 ring position, and each R_2 is H.

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6. The pharmaceutical composition of claim 5, wherein each R_3 and R_4 are lower alkoxy.

- 20 7. The pharmaceutical composition of claim 1, wherein the compound is 5-(3-ethoxyphenyl)-N-(3,4,5-trimethoxyphenyl)-2-pyridinamine.

8. The pharmaceutical composition of claim 1, wherein the compound is N-[4-(4-morpholinyl)phenyl]-5-(2-naphthyl)-2-pyridinamine.

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9. The pharmaceutical composition of claim 1, wherein the compound is 5-benzo[b]thien-2-yl-N-[4-(4-morpholinyl)phenyl]-2-pyridinamine.

- 30 10. The pharmaceutical composition of claim 1, wherein the compound is 5-[3,5-bis(trifluoromethyl)phenyl]-N-[4-(4-morpholinyl)phenyl]-2-pyridinamine.

11. The pharmaceutical composition of claim 1, wherein the compound is 5-[4-(4-morpholinyl)phenyl]-N-[4-(pentyloxy)phenyl]-2-pyridinamine.

12. The pharmaceutical composition of claim 1, wherein the compound is 5-[4-(dimethylamino)phenyl]-N-[4-(pentyloxy)phenyl]-2-pyridinamine.
- 5 13. The pharmaceutical composition of claim 1, wherein the compound is 5-[4-(dimethylamino)phenyl]-N-(4-methoxyphenyl)-2-pyridinamine.
14. The pharmaceutical composition of claim 1, wherein the compound is 5-(1,3-benzodioxol-5-yl)-N-[4-(pentyloxy)phenyl]-2-pyridinamine.
- 10 15. The pharmaceutical composition of claim 1, wherein the compound is 4-[6-[[4-(pentyloxy)phenyl]amino]-3-pyridinyl]-benzenepropanoic acid.
16. The pharmaceutical composition of claim 1, wherein the compound is 5-(2-methoxyphenyl)-N-[4-(pentyloxy)phenyl]-2-pyridinamine.
- 15 17. The pharmaceutical composition of claim 1, wherein the compound is N-(2,3-dihydro-1,4-benzodioxin-6-yl)-5-[(E)-2-phenylethenyl]-2-pyridinamine.
- 20 18. The pharmaceutical composition of claim 1, wherein the compound is N-[6-[3-(dimethylamino)phenyl]-2-pyridinyl]-9-ethyl-9H-carbazol-3-amine.
19. The pharmaceutical composition of claim 1, wherein the compound is 6-(3-ethoxyphenyl)-N-(3,4,5-trimethoxyphenyl)-2-pyridinamine.
- 25 20. The pharmaceutical composition of claim 1, wherein the compound is 6-[3-(trifluoromethoxy)phenyl]-N-(3,4,5-trimethoxyphenyl)-2-pyridinamine.
21. The pharmaceutical composition of claim 1, wherein the compound is 6-(1,3-benzodioxol-5-yl)-N-(3,4,5-trimethoxyphenyl)-2-pyridinamine.,
- 30 22. The pharmaceutical composition of claim 1, wherein the compound is 6-phenyl-N-(3,4,5-trimethoxyphenyl)-2-pyridinamine.

23. The pharmaceutical composition of claim 1, wherein the compound is 6-(3,4-dimethoxyphenyl)-N-(3,4,5-trimethoxyphenyl)-2-pyridinamine.
- 5 24. The pharmaceutical composition of claim 1, wherein the compound is 6-(3,4-dimethylphenyl)-N-(3,4,5-trimethoxyphenyl)-2-pyridinamine.
25. The pharmaceutical composition of claim 1, wherein the compound is N-(4,5-dimethoxy-2-methylphenyl)-6-(3,4-dimethylphenyl)-2-pyridinamine.
- 10 26. The pharmaceutical composition of claim 1, wherein the compound is 6-(2-naphthyl)-N-(3,4,5-trimethoxyphenyl)-2-pyridinamine.
- 15 27. The pharmaceutical composition of claim 1, wherein the compound is 6-(2-phenoxyphenyl)-N-(3,4,5-trimethoxyphenyl)-2-pyridinamine.
28. The pharmaceutical composition of claim 1, wherein the compound is 6-[(E)-2-phenylethenyl]-N-(3,4,5-trimethoxyphenyl)-2-pyridinamine.
- 20 29. A method for reducing ischemic death in a cell population comprising contacting a cell in the cell population with a prophylactically effective amount of the compound of claim 1.
- 25 30. The method of claim 29, wherein the cell is selected from the group consisting of a neuronal cell, a glial cell, a cardiac cell, a lymphocyte, a macrophage and a fibroblast.
31. A method for reducing neuronal cell death in response to a traumatic event comprising contacting the neuronal cell with a prophylactically effective amount of the compound of claim 1 prior to, during, or within a suitable time period following the traumatic event.
- 30 32. The method of claim 29, wherein the contacting is performed *in vitro*.

33. The method of claim 31, wherein the contacting is performed *in vitro*.
34. The method of claim 29 , wherein the contacting is performed *ex vivo*.
- 5 35. The method of claim 31, wherein the contacting is performed *ex vivo*.
36. The method of claim 29 , wherein the contacting is performed *in vivo*.
- 10 37. The method of claim 31, wherein the contacting is performed *in vivo*.
38. A method for reducing neuronal cell death in response to a traumatic event,
comprising administering to the subject a prophylactically effective amount of
the pharmaceutical composition of claim 1 prior to, during, or within a suitable
15 time period following the traumatic event.
39. The method of claim 38, wherein the subject is a human.
40. The method of claim 38, wherein the traumatic event is selected from the group
20 consisting of a medical disorder, a physical trauma, a chemical trauma and a
biological trauma.
41. The method of claim 38, wherein the pharmaceutical composition is
administered prior to the traumatic event.
- 25 42. The method of claim 38, wherein the pharmaceutical composition is
administered during the traumatic event.
43. The method of claim 38, wherein the pharmaceutical composition is
30 administered subsequent to the traumatic event.
44. An apparatus for administering to a subject the pharmaceutical composition of
claim 1 comprising a container and the pharmaceutical composition therein,

wherein the container has a device for delivering to the subject a prophylactic dose of the pharmaceutical composition.

45. The apparatus of claim 44, wherein the device for delivering the pharmaceutical composition is a syringe.
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